UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,490	12/20/2005	Richard Colin Fitzgerald	356952.00039-US	6307

78905 7590 03/17/2009

Saul Ewing LLP (Philadelphia)
Attn: Patent Docket Clerk
2 North Second St.
Harrisburg, PA 17101

EXAMINER	
HWA, SHYUE JIUNN	

ART UNIT	PAPER NUMBER
2163	

MAIL DATE	DELIVERY MODE
03/17/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,490	FITZGERALD ET AL.	
	Examiner	Art Unit	
	JAMES HWA	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 2, 5, 7, 9 and 12 have been amended. This action is responsive to Applicant's application filed January 9, 2009. Claims 1-12 are pending in this office action.

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/09/2009 has been entered.

Response to Arguments

3. Applicant's arguments with respect to claims 1 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argued that it would not be obvious to combine the two references and no motivation to combine.

In response to applicant's argument, The examiner respectfully submits that to establish a prima facie case of obviousness under 35 USC 103, references must provide motivation or suggestion either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art; must be analogous; and must teach all the claimed limitations.

In this case, the instant application is concerned to a method of enabling an application, running on an operating system, to access files stored on a removable storage medium; the operating system and the storage medium use incompatible.

As discussed in the office action, Nakajima provides a removable medium is equipped with at least a first storage unit, a processor and an interface. The first storage unit includes first programming instructions designed to implement an embedded application. The embedded application is designed to dynamically generate content in response to a hosting computing device accessing the removable medium to retrieve the content (column 2, lines 13-20).

Similarly, Whitcher teaches is related to a computer system has a processor running an operating system that supports one or more filesystems and one or more removable storage devices capable of storing therein images captured by a digital camera and formatted by the operating system according to a supported filesystem (column 2, lines 16-24).

Also, Fairweather teaches a client-server environment that is tied to the types system and capable of interpreting and executing all necessary collection manipulations remotely (column 2, lines 55-59).

As discussed above, a person of an ordinary skill in the art at the time the invention was made would recognize the advantage of Whitcher and Fairweather to add the their's teaching of a processor running an operating system that supports one or more filesystems and one or more removable storage devices capable of storing therein images captured by a digital camera and formatted by the operating system to Nakajima

's system in order to provide for a more efficient means to manage datasets by persistently associating the datasets with the objects on the removable media and saving device internal memory (column 7, lines 40-45).

Therefore, the 103 rejection for claims is proper and make the record clear.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 4, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima (US Patent No. 6,868,480 B2, hereinafter “Nakajima”) in view of Whitcher (US Patent No. 6,760,065 B1, hereinafter “Whitcher”) and Fairweather (US Patent No. 7,308,449 B2, hereinafter “Fairweather”).

As to claim 1, Nakajima teaches the claimed limitations:

"A method of enabling an application, running on an operating system with a first directory hierarchy, to access files stored on a removable storage medium in which the following steps occur" as a method including the operational flows of the relevant aspects of the relevant components on both the host computing device and the removable active application specific medium (column 3, lines 12-16). The embedded application is designed to dynamically generate content in response to a hosting computing device accessing the removable medium to retrieve the content (column 2, lines 17-20).

"(a) the application sends a file request with a path that conforms to the first directory hierarchy" as when application requests for contents, i.e. when host computing device accesses removable medium for contents (column 4, lines 3-5). The processor is coupled to the first storage unit to execute the first programming instructions (column 2, lines 20-22).

"(b) a file system starts a search for the file from a location within the second directory hierarchy that is different from the start location defined by the file request" as the file system of host computing device receives the request, maps the request to locations of the removable medium, and forwards the requests along with the locations to the device driver of the removable medium device (on host computing device) (column 6, line 67 to column 7, line 5).

The controller facilitates the inter-operation and control of the second storage unit in a manner, enabling the present invention to be transparent to the device driver of the host computing device (column 2, lines 34-38).

Accordingly, they are pseudo locations, and the pseudo locations merely appear to exist (much like virtual memory locations) from the perspective of file system service and device driver for transparency purpose (column 5, lines 51-56).

Nakajima does not explicitly teach the claimed limitation "uses a second directory hierarchy that is incompatible with the first; a path that conforms to the first directory hierarchy".

Whitcher teaches a method comprises the computer-implemented steps of (a) storing in the removable storage device a first directory entry for a filesystem wherein the first directory entry includes a file name having a restrictive pathname imposed by the naming convention of the supported filesystem; (b) storing in the removable storage device an image table of contents for the stored images wherein the image table of contents includes a presentation filename having a presentation pathname selected by a user of the digital camera, the presentation pathname being independent (e.g. incompatible) of the naming convention of the supported filesystem (column 2, lines 24-36).

A root directory 30 of the filesystem includes one or more picture directories, e.g., directories 32 and 34, each with restrictive pathnames imposed by the naming convention of the supported filesystem. Each picture directory includes a plurality of pictures, e.g., pictures 32a, 32b, 32c and 34a, 34b, 34c. Other types of records may be included in each directory, such as an audio record 36 related to the picture 34c. In addition, the root directory 30 contains the Image TOC file 38 (column 4, line 66 to column 5, line 8; see also figure 3).

Removable storage media comes in many forms: CD, floppy disk, compact flash cards, etc. These removable media can also be formatted in many different variations. Variation can occur with respect to filesystem and variation can even occur in block size when the physical recording format permits it. Additionally, constraints on the namespace or the directory hierarchy can lead to variations (column 1, lines 28-35).

Nakajima does not explicitly teach the claimed limitation "by starting a path lookup at a non-root directory on the second directory hierarchy rather than modifying a string representing the original path".

Fairweather teaches a client-server environment that is tied to the types system and capable of interpreting and executing all necessary collection manipulations remotely (column 2, lines 55-59). A function that may be included in the API, hereinafter referred to as TC_SymbolicRef, which could be provided in order to obtain a reference to a given element of a collection given its name or in the case of a tree, its full path. Sometimes for certain collections it is more convenient (and often faster) to refer to elements by name rather than any inherent order that they might have. This is the central concept behind the kFromSet collection; however, it may also be applied to any other collection type. An element could also be found via its relative path from some other non-root node in the collection using this call simply by specifying the kPathRelativeToParent which causes theParentRef, not the collection root, to be treated as the starting point for the relative path aName (column 27, lines 3-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima, Whitcher and

Fairweather before him/her, to modify Nakajima starting a path lookup at a non-root directory on the second directory hierarchy because that would allowed the creation, management, retrieval, and distribution of massively large collections of information that can be shared across a distributed network without building absolute references or even pre-existing knowledge of the data as taught by Fairweather (column 2, line 65 to column 3, line 3).

As to claim 4, Nakajima teaches the claimed limitations:

"The storage medium is a storage medium that is removable from the device and conforms to the Memory Stick standard" as the removable medium includes a body casing encasing the components. The body casing has the form factor of a PCMCIA card, a typical game cartridge, a 3.5 in diskette, or a selected one of a number of conventional non-volatile memory devices, such as Flash Memory or Memory Stick, for compatibility with existing host computing devices (column 2, lines 54-60).

As to claim 9, Nakajima teaches the claimed limitations:

"The location of the start of the search is identified by mapping a non-existing directory that conforms to the directory hierarchy used by the operating system to a directory that conforms to the second directory hierarchy" as in the case of removable active application specific medium, the locations do not actually exist. Accordingly, they are pseudo locations, and the pseudo locations merely appear to exist (much like virtual

memory locations from the perspective of file system service and device driver for transparency purpose (column 5, lines 50-56).

the removable medium device driver on host computing device makes a number of accesses to retrieve the requested content from the (pseudo) locations of removable medium (column 7, lines 6-9).

As to claim 12, Nakajima teaches the claimed limitations:

"A portable computing device programmed to enable an application running on it to access files stored on a storage medium" as a removable medium is equipped with at least a first storage unit, a processor and an interface. The first storage unit includes first programming instructions designed to implement an embedded application (column 2, lines 14-17).

"In which the application sends a file request with a path that conforms to a first directory hierarchy used by the device operating system" as when application requests for contents, i.e. when host computing device accesses removable medium for contents. Further, the generation operations are performed within removable medium without exposing embedded applications (column 4, lines 3-7).

"The device is further programmed to search for the path in the file request starting from a location within a second directory hierarchy used by the storage medium; and the second directory hierarchy being incompatible with the first" as the file system of host computing device receives the request, maps the request to locations of the

removable medium, and forwards the requests along with the locations to the device driver of the removable medium device (column 6, line 67 to column 7, line 5).

The controller facilitates the inter-operation and control of the second storage unit in a manner, enabling the present invention to be transparent to the device driver of the host computing device (column 2, lines 34-38).

Nakajima does not explicitly teach the claimed limitation "a path that conforms to a first directory hierarchy; the second directory hierarchy being incompatible with the first".

Whitcher teaches a method comprises the computer-implemented steps of (a) storing in the removable storage device a first directory entry for a filesystem wherein the first directory entry includes a file name having a restrictive pathname imposed by the naming convention of the supported filesystem; (b) storing in the removable storage device an image table of contents for the stored images wherein the image table of contents includes a presentation filename having a presentation pathname selected by a user of the digital camera, the presentation pathname being independent (e.g. incompatible) of the naming convention of the supported filesystem (column 2, lines 24-36).

A root directory 30 of the filesystem includes one or more picture directories, e.g., directories 32 and 34, each with restrictive pathnames imposed by the naming convention of the supported filesystem. Each picture directory includes a plurality of pictures, e.g., pictures 32a, 32b, 32c and 34a, 34b, 34c. Other types of records may be included in each directory, such as an audio record 36 related to the picture 34c. In

addition, the root directory 30 contains the Image TOC file 38 (column 4, line 66 to column 5, line 8; see also figure 3).

Removable storage media comes in many forms: CD, floppy disk, compact flash cards, etc. These removable media can also be formatted in many different variations. Variation can occur with respect to filesystem and variation can even occur in block size when the physical recording format permits it. Additionally, constraints on the namespace or the directory hierarchy can lead to variations (column 1, lines 28-35).

Nakajima does not explicitly teach the claimed limitation "that is different from the start location defined by the file request by starting a path lookup at a non-root directory on the second directory hierarchy rather than modifying a string representing the original path".

Fairweather teaches a client-server environment that is tied to the types system and capable of interpreting and executing all necessary collection manipulations remotely (column 2, lines 55-59). A function that may be included in the API, hereinafter referred to as TC_SymbolicRef, which could be provided in order to obtain a reference to a given element of a collection given its name or in the case of a tree, its full path. Sometimes for certain collections it is more convenient (and often faster) to refer to elements by name rather than any inherent order that they might have. This is the central concept behind the kFromSet collection; however, it may also be applied to any other collection type. An element could also be found via its relative path from some other non-root node in the collection using this call simply by specifying the

kPathRelativeToParent which causes theParentRef, not the collection root, to be treated as the starting point for the relative path aName (column 27, lines 3-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima, Whitcher and Fairweather before him/her, to modify Nakajima starting a path lookup at a non-root directory on the second directory hierarchy because that would allowed the creation, management, retrieval, and distribution of massively large collections of information that can be shared across a distributed network without building absolute references or even pre-existing knowledge of the data as taught by Fairweather (column 2, line 65 to column 3, line 3).

5. Claims 2, 3, 5, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima (US Patent No. 6,868,480 B2) as applied to claim 1 above, and further in view of Whitcher (US Patent No. 6,760,065 B1), Fairweather (US Patent No. 7,308,449 B2) and Mullins et al. (US Patent No. 6,985,912 B2, hereinafter "Mullins").

As to claim 2, Nakajima does not explicitly teach the claimed limitation "a prefix is attached to the original file request path, and the file system interprets this prefix so as to change where the search begins on the second directory hierarchy".

Mullins teaches a dynamic database mapping tool would be necessary to provide the object programming application with a map or maps to both the primary and secondary data caches in order to successfully implement dynamic transient memory

resident caches for multiple users (column 3, lines 13-17). If from a previous window, the user specified a package prefix for the source code, then a subdirectory matching the prefix name can automatically be created in the specified output directory (column 12, lines 5-9).

When a particular template is picked any file prefix/suffix values to be appended to the filename would also be prefixed or appended to the map name automatically (column 13, lines 4-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima, Whitcher, Fairweather and Mullins before him/her, to modify Nakajima a prefix is attached to the original file request because that would allow mapping such object to an XML or other second format data source as taught by Mullins (column 14, lines 62-63).

As to claim 3, Nakajima does not explicitly teach the claimed limitation “the file system filters out parts of the second directory hierarchy during the search so as to present a view of the second directory hierarchy that conforms to the layout of the first directory hierarchy, or to hide parts of the second hierarchy to which access should be denied”.

Mullins teaches this allows more developer control as to how datasets are exchanged, filtered and/or validated between a first data source and a second data source (column 14, lines 63-65).

A complete list of pre-configured targets can be viewed from the Connections window in the Generate Java wizard of CocoAdmin. Any Java class can readily be used with CocoBase, whether or not it was generated by the CocoAdmin tool (column 9, line 65 to column 4, line 2).

Unlike CocoBase Maps, Link models are not kept in the CocoBase repository. Once a link definition model is created it is saved in the demos/resources directory. As long as the model is in the classpath either directly or in a subdirectory called resources it will find the model properties file or retrieve the navigation information (column 37, lines 47-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima, Whitcher, Fairweather and Mullins before him/her, to modify Nakajima the file system filters out parts of the second directory hierarchy because that would allow mapping such object to an XML or other second format data source as taught by Mullins (column 14, lines 62-63).

As to claim 5, Nakajima does not explicitly teach the claimed limitation “the location of the start of the search is identified automatically without the application having to be aware of this step or of the existence of the second directory hierarchy”.

Mullins teaches a software programming module can automatically generate object source code from at least one database schema map, at least one object programming application schema, or from a combination of at least one database

schema map and at least one object programming application schema (column 6, lines 10-15).

When a particular template is picked any file prefix/suffix values to be appended to the filename would also be prefixed or appended to the map name automatically (column 13, lines 4-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima, Whitcher, Fairweather and Mullins before him/her, to modify Nakajima start of the search occurs automatically because that would allows the mapping information and associated metadata to be easily accessed as taught by Mullins (column 6, lines 20-22).

As to claim 10, Nakajima does not explicitly teach the claimed limitation “the mapping allows file interchange to occur”.

Mullins teaches a dynamic database mapping tool would be necessary to provide the object programming application with a map or maps to both the primary and secondary data caches in order to successfully implement dynamic transient memory resident caches for multiple users (column 3, lines 13-18).

systems having the flexibility and dynamic capability to attach data from a database to maps as objects and having the ability to map one or more databases to various objects in real time. A strong need exists for such systems that also permit a user to cleanly, transparently and synchronically transfer data between multiple data

sources, while maintaining the ability for an object programming application to access or use such data in the system (column 3, lines 46-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima, Whitcher, Fairweather and Mullins before him/her, to modify Nakajima the mapping allows file interchange to occur because that would allow allows the mapping information and associated metadata to be easily accessed as taught by Mullins (column 6, lines 20-22).

As to claim 11, Nakajima does not explicitly teach the claimed limitation "the directory that conforms to the second directory hierarchy is a root directory".

Whitcher teaches root directory (element 30 of figure 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima, Whitcher, Fairweather and Mullins before him/her, to modify Nakajima the second directory hierarchy is a root directory because that would allow allows the mapping information and associated metadata to be easily accessed as taught by Mullins (column 6, lines 20-22).

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima (US Patent No. 6,868,480 B2) as applied to claim 1 above, and further in view of Whitcher (US Patent No. 6,760,065 B1), Fairweather (US Patent No. 7,308,449 B2) and Howard et al. (US Patent No. 6,519,612 B1, hereinafter "Howard").

As to claim 6, Nakajima does not explicitly teach the claimed limitation “the location of the start of the search is not the root of the second directory hierarchy”.

Howard teaches the virtual directory system can provide a single directory where all of the user's files are virtually stored and which can be easily searched rather than needing to search through the computer system's entire directory system (column 8, lines 16-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima, Whitcher, Fairweather and Howard before him/her, to modify Nakajima the location of the start of the search is not the root of the second directory hierarchy because that would allows the newly configured directory to be made available at the operating system level to application level programs as taught by Howard (column 8, lines 5-10).

As to claim 7, Nakajima does not explicitly teach the claimed limitation “the location of the start of the search is identified by recognizing and skipping a predefined prefix of a file request path to ensure conformance to the second directory hierarchy”.

Howard teaches the files stored on the physical storage devices can be represented in the virtual directory system and because the virtual directory system has among its characteristics the qualities of a relational database, the file information for the various files can be reorganized, reconfigured, or searched easily. These features allow the user greater flexibility in how files are viewed and how the user finds data.

Additionally, the database can overcome the requirement of unique file names, as imposed by traditional hierarchical directory systems (column 4, lines 39-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima, Whitcher, Fairweather and Howard before him/her, to modify Nakajima the search is performed by recognizing and skipping a predefined prefix of a file request path because that would allows the newly configured directory to be made available at the operating system level to application level programs as taught by Howard (column 8, lines 5-10).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima (US Patent No. 6,868,480 B2) as applied to claim 1 above, and further in view of Whitcher (US Patent No. 6,760,065 B1), Fairweather (US Patent No. 7,308,449 B2), Mullins et al. (US Patent No. 6,985,912 B2) and Howard et al. (US Patent No. 6,519,612 B1).

As to claim 8, Nakajima does not explicitly teach the claimed limitation "recognizing and skipping the predefined prefix is only done once per path on the first occurrence of the predefined prefix".

Mullins teaches when a particular template is picked any file prefix/suffix values to be appended to the filename would also be prefixed or appended to the map name automatically (column 13, lines 4-6).

Also, Howard teaches in utilizing its database capabilities, the global system may organize lists of files that meet predefined, or user defined criteria and may provide

these lists of files on demand to Information Management Processes to more efficiently carry out data management processes. It may also allow the end user to access any file in the computer system, either directly through the native file system, or indirectly through the parallel virtual directory system (column 17, lines 24-36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima, Whitcher, Fairweather, Mullins and Howard before him/her, to modify Nakajima the predefined prefix is only done once per path on the first occurrence because that would allows the newly configured directory to be made available at the operating system level to application level programs as taught by Howard (column 8, lines 5-10).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Hwa whose telephone number is 571-270-1285. The examiner can normally be reached on 8:00 – 5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.
Status information for unpublished applications is available through Private PAIR only, for more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

03/09/2009

/James Hwa/
Examiner, Art Unit 2163

/Cam Y Truong/
Primary Examiner, Art Unit 2169